

PODIUM SCRIPT for special Skylab Awards Ceremony at MSFC
November 21, 1974

(Dr. Lucas opens program with introductory and welcoming remarks, after which he introduces the special guests, winding up with Dr. Fletcher and turning the meeting over to him.)

DR. FLETCHER: "It is indeed a pleasure for me to participate in this special Skylab Awards Ceremony and to meet with members of the NASA Skylab Team. I am especially pleased that in addition to Skylab Team Members from our NASA Centers, many of you who have contributed so much to Skylab through your work in other government agencies, universities, and private industry have also joined us here today.

" On previous occasions we have honored men and women who made Skylab a managerial, operational, and technological success, as well as those whose extraordinary efforts saved the mission during the crisis following the first Skylab launch. We have with us today several additional honorees in certain of those managerial and operational categories. However, we are here today principally to honor the Skylab experimenters for the especially outstanding success and importance of their experiments.

"Obviously, it is much too early to catalog all the scientific and technical achievements of the Skylab missions, but the program has made one fundamental point very clear: a multidisciplinary manned space station is not only practical, but it can be scientifically highly productive.

" A look at some of the Skylab statistics provides convincing evidence of Skylab's productivity. During their 12,000 manhours in Skylab, of which 26 percent was devoted to experiments, the nine crew members of Skylab observed the Sun for 740 hours and brought home more than 175,000 solar pictures. Their Earth observations during 89 passes totalled 570 hours and yielded over 46,000 photographs and 70 kilometers of tapes. They spent 52 hours observing the Comet Kohoutek, from the finest observation platform in the world---and they also performed 50% more scientific activities than had been scheduled in the pre-mission plan.

"Clearly, these are impressive statistics; but the statistics don't tell the full or real story of Skylab's scientific and technical successes. In order to really understand the meaning of this massive accumulation of data, one has to examine its impact on such diverse fields of science as the physiological effects of weightlessness, the dynamic processes of the Sun, the nature of the comets, and the physical characteristics of stars and interstellar dust.

"For example, looking at the solar astronomy results it is apparent that after only a few months of analysis the solar data that was acquired by Skylab, together with the associated ground based observing programs, made a quantum increase in our knowledge of the Sun. This occurred in two ways: the first, was the exceptional performance of the battery of instruments called the Apollo Telescope Mount (ATM), which gave us the ability to "see" much finer detail of solar activity than ever before observed. The second was that the operation of the ATM could be and was directly under the control of scientifically trained astronauts ^{like Ed Gibson here} who were able to react quickly to rapidly changing events and to select the right instruments and train them on the particular area of the Sun where the phenomenon of interest was taking place.

"Throughout the history of astronomy, major improvements in observational capability have always led to major new scientific results. ATM is no exception. I am sure that as time goes on and the analysis of ATM observations continues, some of our scientific conclusions will change, and perhaps even more important findings than we are currently aware of will be made.

" Another good example of the use the astronauts were able to make of the ATM is demonstrated by the unique data which cometary science has gained from the Skylab observations of the Comet Kohoutek. Skylab provided more observations on this comet than any other single observatory, and was the only observatory able to view the comet both before and after it experienced its maximum solar heating at perihelion.

"Another example of a boon to science and technology from Skylab came from the materials processing experiments. Earlier this month I had the privilege of presenting to President Ford one of the significant results of these materials processing investigations-- a small piece of one of the indium antimonide crystals manufactured aboard Skylab. While Earth-grown crystals are limited in size, uniformity, and perfection, Skylab had demonstrated that all three of these limitations can be overcome in the gravity free environment of space. Such space-grown crystals may well permit another significant step in electronic circuit miniaturization, ^{+ other industries as well} and thus could signify the beginning of economically important new industries.

"Finally, we can be proud of the scientific results we have gained in achieving another of Skylab's primary objectives, the evaluation of man's physiological responses and aptitudes under long duration, zero-gravity conditions, and his adaptation to the terrestrial environment upon return to Earth. The Skylab Team conducted the most extensive medical mission ever flown in space. In all, 16 life sciences experiments were conducted to study responses and permit comparisons between data collected from pre-flight, in-flight, and post-flight tests. Many interesting and important results have been obtained.

"In a philosophical vein, it is clear that with Skylab we proved rather clearly that man, if he desires, could establish habitats in space. He could live, work, think, perhaps found a whole generation of people who have been raised in a Zero-G environment. In Apollo, terrestrial life reached out and touched the Moon. In Skylab, we demonstrated that life could exist in an entirely different environment---the space between celestial bodies.

"As you know on Pioneer 10 which is now on its way out of the solar system, a message was carried communicating to any other intelligence when and where in the Universe the space craft was built. At the dedication of Arecibo, an electromagnetic signal was transmitted which is now well outside the solar system telling whoever is out there that we are here and would like to talk. These are truly exciting ~~and momentous~~ times and I am sure that you are as proud as I, to have been a part of man's effort to explore and understand the universe, our origins, and perhaps to help shape the future destiny of man.

" The success of Skylab is a tribute to all of you on the Skylab Team who worked so hard in this epic program. On this and other occasions when we honor a select few, we must be sure also to recognize that their individual achievements reflect in large part the work and cooperation of the thousands of men and women whose dedication and determination have made possible the success of Skylab.

" To all who worked together as the Skylab Team, I give a heartfelt thank-you for a job well done, and to each of you being honored today, my personal congratulations.

" In presenting the awards, I will ask Dr. Naugle to assist me by presenting the certificates while I pin on the medals. I will ask Col. ^{Ed. Mohlar} Edward D. Mohlar to assist by reading the names and citations.

" We begin with the Group Achievement Awards!"

^{John Yoe}
(After the last award has been presented, Dr. Fletcher will introduce Ed Gibson who will speak at that time.)

DR. FLETCHER: " I would like now to introduce Ed Gibson, science pilot of the third Skylab crew, and certainly an experienced solar observer in his own right.